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REMARKS

Reconsideration and reexamination of the application are requested in view of the above amendments and the following remarks. Claims 1-3 have been amended. Claims 4-9 have been added. Claims 1-9 are pending.

I. Amendments

The amendments to claims 1 and 2 are supported by the original disclosure, for example page 13, line 12 to page 14, line 7; page 14, line 27 to page 16, line 8; page 20, lines 20-24; and Figures 6 and 7.

New claims 4, 5, 7 and 8 are supported by the original disclosure, for example the passages noted above for claims 1 and 2.

New claims 6 and 9 are supported by the original disclosure, for example page 8, lines 2-10 and Figures 1, 6 and 7.

No new matter has been added by these amendments.

II. Prior art rejections

Claims 1-3 are rejected under 35 USC 102(b) as being anticipated by Yamada et al. (US 5,942,862). Applicants respectfully traverse.

As disclosed by Applicants, conventional electric power steering apparatus with two motors face problems, including greater switching noise and magnetostrictive sound, resulting in unpleasant steering feel (see page 3, lines 14-27). Yamada is directed to a power output apparatus that includes an engine and two motors connected in tandem to a drive shaft of the engine. Yamada clearly does not disclose or suggest an electric power steering apparatus, nor disclose the problems of switching noise, magnetostrictive sound, or unpleasant steering feel. Applicants respectfully traverse the assertion that the system in Yamada is directed to a steering apparatus as recited in either claim 1 or claim 2, and the assertion that the motors 30, 40 and circuits 91, 92 in Yamada are in any way equivalent to the claimed motors for generating a steering assist force to be applied to a steering system and the first and second drive circuits.

Yamada does not disclose each and every feature recited in claim 1 or in claim 2. For example, with respect to claim 1, Yamada does not disclose a first control signal at a

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first control frequency, and a second control signal at a second control frequency, where the first frequency has a value greater than the second frequency. For example, with respect to claim 2, Yamada does not disclose a first pulse signal at a first phase, and a second pulse signal at a second phase, where the first phase is offset from the second phase.

In rejecting claim 1, the rejection refers to element 90 as being a controller for determining control frequencies, and references column 10, lines 32-56 for support. First, Applicants note that previous claim 1 did not recite a controller for "determining" control frequencies. Instead, previous claim 1 recited a controller for "differentiating" the control frequency...etc. As defined by Applicant's specification, "differentiating" means that the control frequencies of the first and second drive circuits are different, i.e. they have different values (see, e.g., page 14, lines 19-25). Yamada does not disclose that the signals that are produced by the CPU 90 and input to the transistors Tr1-Tr6 and Tr11-Tr16 have different frequencies.

The amendments to claim 1 better define the meaning of "differentiating" which has been deleted from claim 1. Yamada does not disclose a first control signal at a first control frequency and a second control signal at a second control frequency, where the first frequency has a value greater than the second frequency. Yamada is silent as to whether the frequencies of the signals that are input to the transistors Tr1-Tr6 and Tr11-Tr16 have the same or differing frequencies.

In rejecting claim 2, the rejection refers to element 90 as being a controller for determining the phase of a first pulse signal and the phase of a second pulse signal, and references column 9, lines 20-52 for support. First, Applicants note that previous claim 2 did not recite a controller for "determining" control frequencies. Instead, previous claim 2 recited a controller for "differentiating" a phase of first pulse signal from a phase of a second pulse signal. As defined by Applicant's specification, "differentiating" means that the phases of the first and second pulse signal are offset (see, e.g., page 20, line 20 to page 21, line 18). Yamada does not disclose that the signals that are produced by the CPU 90 and input to the transistors Tr1-Tr6 and Tr11-Tr16 have differentiated phases.

The amendments to claim 2 better define the meaning of "differentiating" which has been deleted from claim 2. Yamada does not disclose a first pulse signal at a first

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phase and a second pulse signal at a second phase, where the first phase is offset from the second phase. In reviewing column 9, lines 20-52 of Yamada, Applicants do not even see the word "phase" mentioned. Yamada is silent as to whether the phases of the signals that are input to the transistors Tr1-Tr6 and Tr11-Tr16 are offset or not.

For at least these reasons, claims 1 and 2 are patentable over Yamada. Claim 3 depends from claim 2 and is patentable along with claim 2. Applicants do not concede the propriety of the rejection to claim 3.

III. New claims 4-9

New claims 4-6 and 7-9 depend upon claims 1 and 2, respectively, and are patentable along with claims 1 and 2. In addition, Yamada does not disclose the steering torque detector and the vehicle velocity detector as recited in claims 6 and 9.

IV. Conclusion

In view of the above, early issuance of a notice of allowance is solicited. Any questions regarding this communication can be directed to the undersigned attorney, Curtis B. Hamre, Reg. No. 29,165 at (612) 455-3802.



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Respectfully submitted,

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